

ELECTRIC DISTRIBUTION SYSTEM AND METHOD FOR A VEHICLE WITH TWO NETWORKS AT DIFFERENT VOLTAGE LEVELS

Abstract

An electric distribution system and method for a vehicle with two networks at different voltage levels. It consists of an architecture with a network r1, fed from another network r2, or vice versa, by a CC/CC converter, with network r2 connected to a generator G and feeding a starter motor S, and both networks r1, r2 connected to corresponding batteries B1, B2, comprising several equal CC/CC converters C1, C2, C3 in shunted arrangement between r1 and r2, connected to a common point and each one supplying a set of differentiated loads Q1–Q6, the power of each converter being lower than that of the maximum consumption of the assigned loads, whose converters C1, C2, C3 are integrated in a master/slave architecture controlled from a control center M with a microcontroller managing the power to be sent to the loads by each one of said converters in a synchronized manner.